SCALLOP DREDGE GEAR CHARACTERISTICS LOG

This log contains detailed questions about the gear fished. This log will also be used to collect information on mussel dredge gear. Complete a new log for each uniquely configured gear (as defined below) **hauled** during a trip. These unique configurations may be based on variables such as frame height, frame width, number of tickler chains, *etc.* Any changes in these fields require completion of a new Scallop Dredge Gear Characteristics Log. Number each gear configuration sequentially.

Note that a scallop gear is defined as a distinct combination of scallop dredges (port and starboard) deployed during the trip. Both port and starboard dredges, if used, will be described.

If a gear is set out and hauled more than once during a trip, do not complete a new Scallop Dredge Gear Characteristics Log for *each haul* rather record on the Scallop Dredge Haul Log which gear number *was* being hauled. In addition, record any other information necessary to understand the manner in which the gear was set/hauled in COMMENTS.

If information is unavailable or unknown to any question except a "No/Yes" question, record a dash (-) in the field. If the answer to a "No/Yes" question is unknown, record a "9" on the line next to the code for "No" to indicate that the field was not skipped, but the answer is unknown. If a field relates to a question to which you previously answered "No", leave the field blank.

Become familiar with the following definitions.

DEFINITIONS

Dredge: A towed steel frame with a cutting bar on the bottom and a steel ring-bag for holding the scallops or mussels. A club stick may be attached to the end of the ring-bag.

Club Stick: A device used to hold the shape of the dredge while it is being towed and to facilitate dumping the dredge on deck. See Figures 1, 2, and 3.

Pressure Plate: An angled piece of steel welded along the length of the top of the dredge frame. It uses the downward pressure created by the dredge being pulled through the water to keep the dredge on the sea bottom. See Figure 1.

Gear: The combination of dredges fished at any one time.

INSTRUCTIONS

For instructions on completing the Header fields A, B and D refer to the Common Haul Log Data section of the NEFSC Observer Program Manual.

1. GEAR NUMBER(S): Record the consecutive number(s) assigned to each uniquely configured gear hauled.

Example: The first uniquely configured gear is gear number "1", and consists of a port dredge and a starboard dredge. The characteristics for both the port and starboard dredges are recorded on the Scallop Dredge Gear Characteristics Log. This gear number ("1") will be used on the Scallop Dredge Haul Log for each haul and will reflect that both the port and starboard dredge are fishing. If at any time, the gear configuration on either the port or starboard dredge changes (i.e. the number of chains are changed, rollers are removed, the twine top is replaced), a new consecutive gear number ("2") will be assigned. For example, if a tickler chain is removed from the port dredge, a new Scallop Dredge Gear Characteristics Log is required with gear number "2", recording the new characteristics of the port dredge and the same characteristics from the starboard dredge information from gear number "1". The "Gear Number" field on all haul logs after the gear change must reflect the new gear number that was assigned.

2. DREDGE POSITION: Record whether the dredge was fished off the stern of the vessel by checking the box next to "AFT (A)"

NOTE: If the dredge is not fished off the stern and fished off the port and/or starboard

then leave the box next to "AFT (A)" blank.

NOTE: Aft refers to a single dredge fished over the stern of the vessel.

3. FRAME HEIGHT: Record, in whole inches, the overall height of the dredge frame. Measure this distance from the bottom of the cutting bar to the top of the pressure plate (if present). See Figure 1.

4. FRAME WIDTH: Record, in whole feet, the dredge frame width. See Figure 1.

5. PRESSURE PLATE USED?: Record whether a forward angled steel plate (see Figure 1) is used on top of the frame by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

CHAINS

6. ROCK CHAINS USED?: Record whether rock chains (see Figure 3) are hung perpendicular to the dredge frame by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

7. NUMBER: Record the number of rock chains used.

8. TICKLER CHAINS USED?: Record whether tickler chains (see Figure 3) are hung parallel to the dredge frame by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

9. NUMBER: Record the number of tickler chains used.

10. CONFIGURATION: Record the type of configuration of the scallop dredge by placing an "X" next to the appropriate code:

1 = Standard.
2 = Turtle Chain Mat.

NOTE: A Turtle Chain Mat consists of a modified chain arrangement constructed by using a lighter chain. Generally, a 3/8 inch Grade 70 or a Trawlex chain, long or short link, is used for this configuration. The rock chains are typically hung from the back of the cutting bar and connected to the sweep chain. The tickler chains are hung from each side of the sweep chain to create a grid-like pat tern. See Figure 1.

Figure 1. Chain mat for excluding turtles

TWINE TOP

11. USED?: Record whether the top of the chain bag contains a section of mesh called the twine top (see Figure 2) by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

12. MESH SIZE: Record, in whole millimeters, ten randomly selected **inside** mesh meaurements from the twine top. Use calipers for these measurements. See Appendix P. Vernier Caliper Instructions for further information.

CHAIN BAG

13. CHAFFING GEAR USED?: Record whether chaffing gear is used on the bottom of the chain bag by placing an "X" next to the appropriate code:

0 = No.
1 = Yes.

14. AVERAGE NUMBER OF LINKS BETWEEN TWO RINGS: Record the **average** number of links used between two rings in the bottom of the chain bag.

15. LINK STOCK SIZE: Record the fractional diameter of the steel used in the links between the rings in the bottom of the chain bag. This information may be found on the container in which the links were purchased, obtained from the captain, or measured with calipers.

Example: 3/8.

16. INSIDE RING SIZE (TOP OF BAG): Record, in whole millimeters, the inside diameters of ten randomly selected rings from the top (apron; see Figure 2) of the chain bag. Use calipers for these measurements. See Appendix P. Vernier Caliper Instructions for further information.

17. INSIDE RING SIZE (BOTTOM OF BAG): Record, in whole millimeters, the inside diameters of ten randomly selected rings from the bottom of the chain bag. Use calipers for these measurements. See Appendix P. Vernier Caliper Instructions for further information.

18. OUTSIDE RING SIZE: Record, in whole millimeters, the outside diameter of one randomly selected ring from the bottom of the chain bag. Use calipers for this measurement. See Appendix P. Vernier Caliper Instructions for further information.

COMMENTS

Record any additional information about either dredge in the appropriate comment block. If more room is needed, use the back of this log, making sure to write "See Back" on the front of the log. Reference each comment with its corresponding field name.

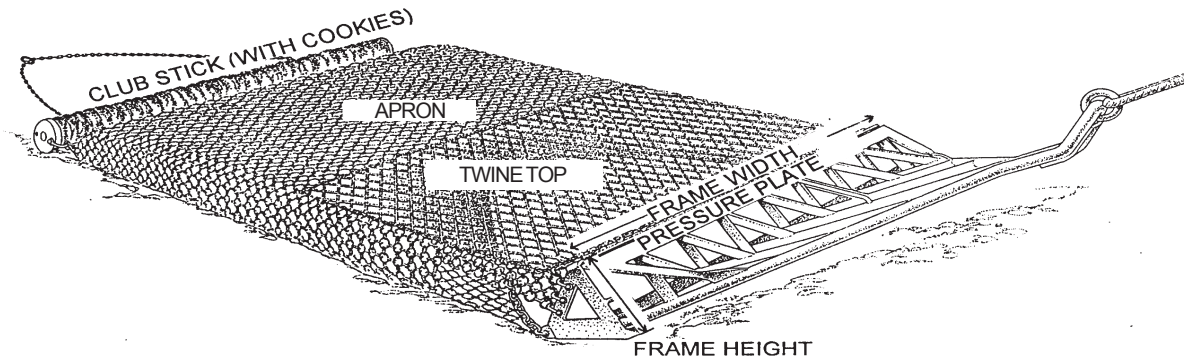

Figure 1. New Bedford style scallop dredge.

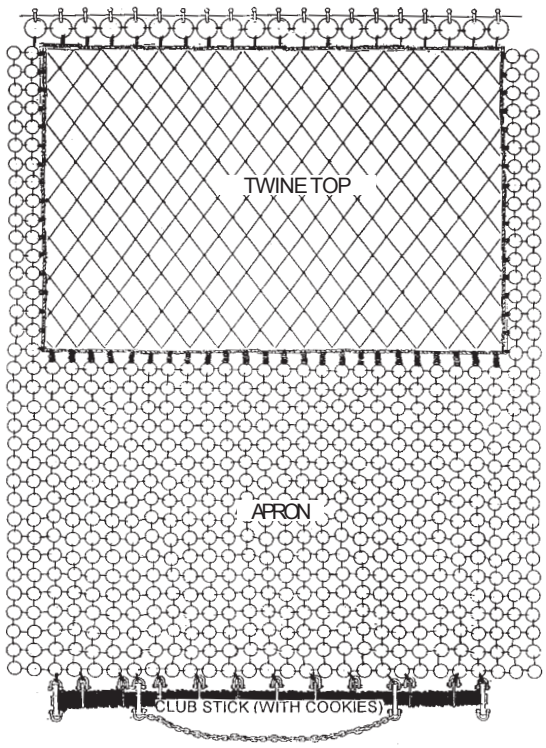

Figure 2. Top of chain bag.

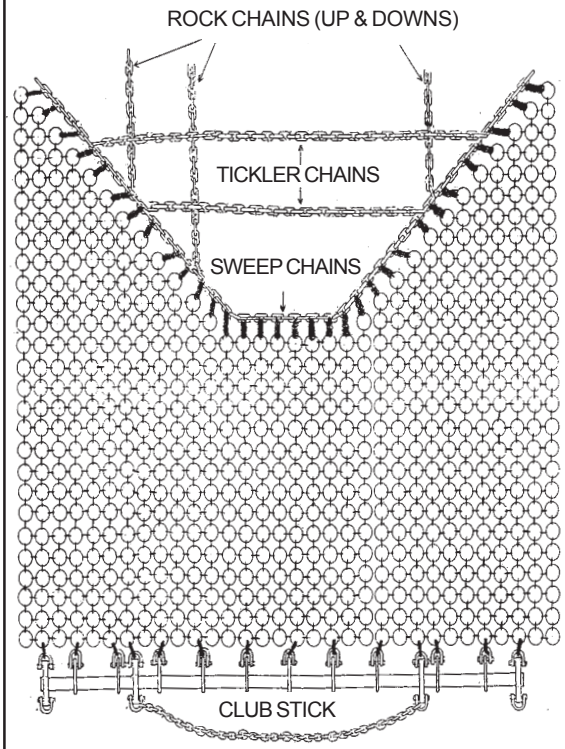

Figure 3. Bottom of chain bag.